Trademark Trial and Appeal Board Electronic Filing System. http://estta.uspto.gov

ESTTA Tracking number: **ESTTA182890**

Filing date: **12/21/2007**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Notice of Opposition

Notice is hereby given that the following party opposes registration of the indicated application.

Opposer Information

Name	Integra LifeSciences Corporation
Granted to Date of previous extension	12/26/2007
Address	311 Enterprise Drive Plainsboro, NJ 08536 UNITED STATES

Attorney information	Peter D. Vogl Jones Day 222 East 41st Street New York, NY 10017 UNITED STATES pdvogl@jonesday.com, eslangston@jonesday.com, sfkampmeier@jonesday.com Phone:212-326-3939

Applicant Information

Application No	77010060	Publication date	08/28/2007
Opposition Filing Date	12/21/2007	Opposition Period Ends	12/26/2007
Applicant	Spinal Elements, Inc. Suite 100 2744 Loker Avenue West Carlsbad, CA 92008 UNITED STATES		

Goods/Services Affected by Opposition

Class 010.
All goods and services in the class are opposed, namely: Spinal implants comprising artificial materials; surgical instruments for use in spinal surgery; medical devices, namely vertebral body replacements, spinal prosthetics, spinal fusion implants and polymer orthopedic implants

Grounds for Opposition

The mark is merely descriptive	Trademark Act section 2(e)(1)
The mark is deceptively misdescriptive	Trademark Act section 2(e)(1)

Related Proceedings	Opposition No. 91178126

Attachments	Notice of Opposition.pdf (25 pages)(1180388 bytes)

Certificate of Service

The undersigned hereby certifies that a copy of this paper has been served upon all parties, at their address record by First Class Mail on this date.

Signature	/Peter D. Vogl/
Name	Peter D. Vogl
Date	12/21/2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

In the Matter of Application Serial No. 77/010,060
Mark: MOSAIC
Published in the Official Gazette on August 28, 2007

INTEGRA LIFESCIENCES CORPORATION,

Opposer,

v.

SPINAL ELEMENTS, INC.,

Applicant.

Opposition No. _____

Commissioner for Trademarks
P.O. Box 1451
Alexandria, VA 22313-1451

NOTICE OF OPPOSITION

TO THE TRADEMARK TRIAL AND APPEAL BOARD:

Opposer Integra LifeSciences Corporation ("Opposer") believes that it would be damaged by the registration of the designation MOSAIC, application Serial No. 77/010,060 for "spinal implants comprising artificial materials; surgical instruments for use in spinal surgery; medical devices, namely vertebral body replacements, spinal prosthetics, spinal fusion implants and polymer orthopedic implants" (Int. Cl. 10), and having been granted an extension of time up to and until December 26, 2007 to oppose said application, hereby opposes the same.

As grounds of opposition, it is alleged that:

1. Opposer is a corporation organized and existing under the laws of Delaware, and having an address at 311 Enterprise Drive, Plainsboro, New Jersey 08536.

2. Opposer, by itself and through its subsidiaries, related companies, and/or affiliates is now and has for many years been engaged in the development and marketing of high quality surgical instruments and innovative devices and products for use in neurosurgery, reconstructive surgery, general surgery and soft tissue repair.

3. Opposer is the owner of U.S. application Serial No. 77/033,256 for the mark INTEGRA MOZAIK for "bone regeneration matrices, namely, bone graft substitutes of collagen ceramic matrices in a moldable and compression restraint forms" (Int'l. Cl. 10), filed on October 31, 2006.

4. By the application herein opposed, Applicant seeks to register the designation MOSAIC for "spinal implants comprising artificial materials; surgical instruments for use in spinal surgery; medical devices, namely vertebral body replacements, spinal prosthetics, spinal fusion implants and polymer orthopedic implants" (Int. Cl. 10).

5. On June 29, 2007, Applicant filed a Notice of Opposition against Opposer's U.S. application Serial No. 77/033,256 to register the mark INTEGRA MOZAIK, alleging a likelihood of confusion between INTEGRA MOZAIK and Applicant's designation MOSAIC under Section 2(d) of the Trademark Act, which proceeding is currently pending before the Trademark Trial and Appeal Board under Opposition No. 91178126.

6. The term "mosaic" is highly descriptive and commonly used in the field of orthopedic medicine. "Mosaic" describes a graft used for cartilage replacement, particularly in the knee and ankle. Attached hereto at Exhibit A is a copy of an online article defining the term "mosaic graft". In fact, osteochondral autograft transplantation is referred to in the field as "mosaic arthroplasty" or "mosaicplasty". Attached at Exhibit B are examples of the descriptive use of these terms. Specifically included is a copy of (1) an excerpt from a utility patent abstract from the U.S. Patent

and Trademark Office records and (2) summaries of medical journal articles from the MEDLINE database, all referencing "mosaic" as a descriptive term.

7. Applicant's designation MOSAIC is primarily merely descriptive of the orthopedic goods identified in application Serial No. 77/010,060, namely, "spinal implants comprising artificial materials; surgical instruments for use in spinal surgery; medical devices, namely vertebral body replacements, spinal prosthetics, spinal fusion implants and polymer orthopedic implants." Based on information and belief, applicant has not established secondary meaning in such designation. Accordingly, the designation MOSAIC is not entitled to registration on the Principal Register under Section 2(e)(1) of the United States Trademark Act, 15 U.S.C. § 1052(e)(1).

8. In the alternative, Applicant's designation MOSAIC is deceptively misdescriptive of Applicant's orthopedic goods to the extent that they are not intended for use in the treatment of cartilage defects in the knee and ankle. Based on information and belief, applicant has not established secondary meaning in such designation. Accordingly, the designation MOSAIC is not entitled to registration on the Principal Register under Section 2(e)(1) of the United States Trademark Act, 15 U.S.C. § 1052(e)(1).

9. The designation MOSAIC is so highly descriptive or misdescriptive that it is incapable of functioning as a trademark and, thus, is not registrable under any circumstances under Section 2(e)(1) of the United States Trademark Act, 15 U.S.C. § 1052(e)(1).

10. The issuance of a registration to Applicant for the designation MOSAIC will give color of exclusive statutory rights in Applicant in violation and derogation of the rights of Opposer and other competitors in the field of orthopedic medicine to accurately and aptly describe their goods and services. Such registration would be a source of damage and injury to Opposer by providing

Applicant with a basis to seek to interfere with Opposer's use and registration of its INTEGRA MOZAIK mark.

By virtue of all the foregoing, Opposer will be damaged by the registration sought herein by Applicant.

WHEREFORE, Opposer believes that it will be damaged by the registration of Applicant's designation and prays that application Serial No. 77/010,060 be refused and denied registration.

Please recognize as attorneys for Opposer in this proceeding Peter D. Vogl (member of the Bar of the State of New York), and the law firm of Jones Day, 222 East 41st Street, New York, New York 10017. Please direct all communications to Peter D. Vogl at Jones Day.

Please charge the requisite opposition filing fee in the amount of $300.00, together with any other fees that may be required, to Deposit Account Number 50-3013.

Dated: December 21, 2007

Respectfully submitted,

By: _____

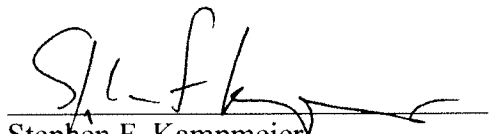
Peter D. Vogl
Elizabeth S. Langston
Stephen F. Kampmeier
JONES DAY
222 East 41st Street
New York, NY 10017
(212) 326-3939

Attorneys for Opposer
Integra LifeSciences Corporation

CERTIFICATE OF SERVICE

I hereby certify that on this 21st day of December, 2007, a true and complete copy of the foregoing **NOTICE OF OPPOSITION** has been served upon Applicant by delivering the same via first class mail upon its counsel at the following address:

Catherine J. Holland, Esq.
Knobbe, Martens, Olson & Bear, LLP
2040 Main Street, 14th Floor
Irvine, California 92614-7216



Stephen F. Kampmeier

EXHIBIT A

About.com : Orthopedics

"Mosaic Graft"

About.com Health's Disease and Condition content is reviewed by Kate Grossman, MD

Definition: A mosaic graft is a type of cartilage replacement. A mosaic graft is a procedure that uses that patient's own healthy cartilage to replace damaged areas of cartilage. To date, mosaic grafts have only been used in the knee joint.

In this procedure multiple 'plugs' of cartilage are removed from areas that are not needed (i.e. where the cartilage is not on a weight bearing area of the bone). Cartilage covers the joint areas where two bones contact each other. However, areas of cartilage also cover some non-contact points. This cartilage can be removed from the non weight-bearing surfaces. Corresponding holes are drilled in the damaged area to remove the unhealthy cartilage and replaced with the plugs. This gives the appearance of a mosaic.

Also Known As: Cartilage Replacement, OATS

EXHIBIT B

3/3,AB,KWIC/7 (Item 7 from file: 654)
US PAT.FULL.

5996788
Derwent Accession: 2004-113842
UTILITY
REASSIGNED, CERTIFICATE OF CORRECTION
C/ **Preparation for repairing cartilage defects or cartilage/bone defects in human or animal joints**
; IMPLANTED CARTILAGE LAYER DOES NOT SINK INTO THE REGION OF THE NATIVE BONE TISSUE; CARTILAGE LAYER AND THE SUBCHONDRAL BONE PLATE OF THE DEVICE HAVE A LARGER CROSS SECTION THAN THE BONE PART; REDUCED RESORBABILITY

Inventor: Nadler, Daniel, Winterthur, CH
Bittmann, Pedro, Hettlingen, CH
Akens, Margarete, Zurich, CH
Rechenberg, Brigitte, Birmensdorf, CH
Auer, Jorg, Lenzburg, CH
Assignee: Zimmer Orthobiologics, Inc., (02), Austin, TX, US
Centerpulse Biologics Inc (Code: 08596)
Examiner: Philogene, Pedro
Legal Representative: Williams, Morgan & Amerson, P.C.

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent 20001212	US 6858042	B2	20050222	US 2000149853	
Related Publ	US 20030100947	A1	20030529		
PCT filing				WO 2000CH659	20001212
PCT publicat	WO 200143667	A	20010621		
Priority				CH 229699	19991215

US Term Extension: 118 days

Fulltext Word Count: 5542

Abstract:
[00001] Repairs of cartilage defects or of cartilage/bone defects in human or animal joints with the help of devices including a bone part (1), a cartilage layer (2) and a subchondral bone plate (4) or an imitation of such a plate in the transition region between the cartilage layer (2) and the bone part (1). After implantation, the bone part (4) is resorbed and is replaced by reparative tissue only after being essentially totally resorbed. In a critical phase of the healing process, a mechanically inferior cyst is located in the place of the implanted bone part (1). In order to prevent the cartilage layer (2) from sinking

into the cyst space during this critical phase of the healing process the device has a top part (11) and a bottom part (12), wherein the top part (11) consists essentially of the cartilage layer (2) and the subchondral bone plate (4) and the bottom part (12) corresponds essentially to the bone part (1) and wherein the top part (11) parallel to the subchondral bone plate (4) has a larger diameter than the bottom part (12). After implantation in a suitable opening or bore (20), the cartilage layer (2) and the subchondral bone plate (4) are supported not only on the bone part (1) but also on native bone tissue having a loading capacity not changing during the healing process. Therefore, the implanted cartilage layer cannot sink during the healing process.

Summary of the Invention:

...a bore created at the defect location using a hollow drill (Hangody L et al.: **Mosaicplasty** for the treatment of articular cartilage defects: application in clinical practice. **Orthopedics** 1998 Jul., 21(7):751-6...

3/3,AB,KWIC/8 (Item 8 from file: 654)
US PAT.FULL.

5984183
Derwent Accession: 2002-394360
UTILITY
Method and apparatus for producing digital orthophotos using sparse stereo configurations and external models
Inventor: Knopp, David E., Parker, CO, US
Assignee: Unassigned
Correspondence Address: REINHART BOERNER VAN DEUREN S.C.;ATTN: LINDA GABRIEL, DOCKET COORDINATOR, 1000 NORTH WATER STREET, SUITE 2100, MILWAUKEE, WI, 53202, US

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent 20040628	US 20050031197	A1	20050210	US 2004878718	
Continuation	US 6757445			US 2000679726	20001004

Fulltext Word Count: 26428

Abstract:

varied endocrine disorders...

[File 155] **MEDLINE(R)** 1950-2007/Nov 30

**File 155: MEDLINE has ceased updating with UD20071203. Please see HELP NEWS 154 for details.*

```
?  s arthroscop?
S1       13647   S ARTHROSCOP?
?  s mosaic?
S2       24481   S MOSAIC?
?  s arthroplas?
S3       28478   S ARTHROPLAS?
?  s s1 and s2 and s3
         13647   S1
         24481   S2
         28478   S3
S4          12   S S1 AND S2 AND S3

?  t 4/3,ab,kwic/all
```

4/3,AB,KWIC/1
MEDLINE(R)

24585126 **PMID:** 17713048
[Surgical treatment of knee osteoarthritis]
Die Achsenkorrektur kann eine Endoprothese hinauszogern.
Honle W; Jezussek D; Fabijani R; Schuh A
Chefarzt der Abteilung fur Orthopadische Chirurgie, Klinikum Neumarkt.
Wolfgang.Hoenle@Klinikum.Neumarkt.de
MMW Fortschritte der Medizin (Germany) Jun 21 2007 , 149 (25-26) p33-4, 36 , **ISSN:** 1438-3276--Print
Journal Code: 100893959
Publishing Model Print
Document type: English Abstract; Journal Article
Languages: GERMAN
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Surgery for knee osteoarthritis is indicated if the clinical subjective symptoms in conjunction with radiological findings can no longer be adequately treated by conservative measures. Fundamentally, the treatment procedures are differentiated between joint preserving interventions (**arthroscopy**, knee revision, if necessary with meniscal debridement, partial synovectomy, osteophyte removal, cartilage surgery with microfracturing, autologous

chrondrocyte transplantation, **mosaic** plasty or spacer implantation), corrective osteotomies near the knee joint and joint replacing procedures (knee endoprostheses or knee fusion [arthrodesis]).
...adequately treated by conservative measures. Fundamentally, the treatment procedures are differentiated between joint preserving interventions (**arthroscopy**, knee revision, if necessary with meniscal debridement, partial synovectomy, osteophyte removal, cartilage surgery with microfracturing, autologous chrondrocyte transplantation, **mosaic** plasty or spacer implantation), corrective osteotomies near the knee joint and joint replacing procedures (knee...
; **Arthroplasty**, Replacement, Knee; **Arthroscopy**; Bone Malalignment--complications--CO; Cartilage, Articular--injuries--IN; Cartilage, Articular--surgery--SU; Debridement; Femur--surgery...

4/3,AB,KWIC/2
MEDLINE(R)

15905880 **PMID:** 16689129
[Surgical treatment of the knee osteoarthritis]
Kirursko lijecenje osteoartritisa kouena.
Haspl Miroslav
Klinika za ortopediju Medicinskoga fakulteta Sveucilista u Zagrebu, Salata 6, 10000 Zagreb.
Reumatizam (Croatia) 2005 , 52 (2) p52-5 , **ISSN:** 0374-1338--Print **Journal Code:** 0216650
Publishing Model Print
Document type: English Abstract; Journal Article; Review
Languages: CROATIAN
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Surgical treatment of initial osteoarthritis consists of palliative **arthroscopic** operation, joint toilet, **arthroscopic** lavage, chondrectomy, meniscectomy, sinovyectomy, meniscus toilet, abrasion **arthroplasty**, microfracture, **mosaicplasty**, transplantation of autologic chondrocytes. To cure deviation of axis it is proposed corrective osteotomy in pre-osteoarthritis phase. Partial or total **arthroplasty** is recommended in treatment of advanced knee degenerative process.
Surgical treatment of initial osteoarthritis consists of palliative **arthroscopic** operation, joint toilet, **arthroscopic** lavage, chondrectomy, meniscectomy, sinovyectomy, meniscus toilet, abrasion **arthroplasty**, microfracture, **mosaicplasty**, transplantation of autologic chondrocytes. To cure deviation of axis it is proposed corrective osteotomy in pre-osteoarthritis phase. Partial or total **arthroplasty** is recommended in treatment of advanced knee degenerative process.
; **Arthroplasty**; **Arthroplasty, Replacement, Knee**; **Arthroscopy**; Humans

4/3,AB,KWIC/3
MEDLINE(R)

15260430 **PMID:** 15659013
Autologous osteochondral grafting (mosaic arthroplasty) for treatment of subchondral cystic lesions in the equine stifle and fetlock joints.
Bodo Gabor; Hangody Laszlo; Modis Laszlo; Hurtig Mark
Large Animal Clinic, Faculty of Veterinary Sciences, Szent Istvan University, Budapest, Hungary.
Veterinary surgery - VS - the official journal of the American College of Veterinary Surgeons (United States)

Nov-Dec 2004 , 33 (6) p588-96 , **ISSN:** 0161-3499--Print **Journal Code:** 8113214
Publishing Model Print
Document type: Evaluation Studies; Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
OBJECTIVE: To describe treatment of equine subchondral bone cysts (SBCs) by reconstruction of the articular surface with osteochondral grafts. STUDY DESIGN: Case series of horses with SBCs unresponsive to conservative therapy. ANIMALS: Eleven horses (1-12 years). METHODS: SBCs were identified in 4 locations: medial femoral condyle (5 horses), lateral femoral condyle (1), distal epiphysis of the metacarpus (4), or metatarsus (1). Osteochondral autograft transplantation (**mosaic arthroplasty**) was performed, taking grafts from the abaxial border of the medial femoral trochlea of the unaffected limb. Graft implantation was achieved through a small arthrotomy or by **arthroscopy** depending on SBC location. RESULTS: All horses improved postoperatively; 10 horses had successful outcomes with radiographic evidence of successful graft incorporation and 7 returned to a previous or higher activity level. On follow-up **arthroscopy** (5 horses) there was successful reconstitution of a functional gliding surface. One horse had delayed incorporation of a graft because of a technical error but became sound. One horse had recurrence after 4 years of work and soundness. One stallion was used for breeding and light riding because of medial meniscal injuries on the same limb. CONCLUSIONS: Implantation of osteochondral grafts should be considered for SBC when conservative management has not improved lameness and there is a risk of further joint injury and degeneration. CLINICAL RELEVANCE: **Mosaic arthroplasty** should be considered for treatment of subchondral bone cysts of the femoral condyle and distal articular surface of the metacarpus/tarsus in horses that are refractory to non-surgical management.
Autologous osteochondral grafting (mosaic arthroplasty) for treatment of subchondral cystic lesions in the equine stifle and fetlock joints.
...femoral condyle (1), distal epiphysis of the metacarpus (4), or metatarsus (1). Osteochondral autograft transplantation (mosaic arthroplasty) was performed, taking grafts from the abaxial border of the medial femoral trochlea of the unaffected limb. Graft implantation was achieved through a small arthrotomy or by arthroscopy depending on SBC location. RESULTS: All horses improved postoperatively; 10 horses had successful outcomes with... ...graft incorporation and 7 returned to a previous or higher activity level. On follow-up arthroscopy (5 horses) there was successful reconstitution of a functional gliding surface. One horse had delayed... ...improved lameness and there is a risk of further joint injury and degeneration. CLINICAL RELEVANCE: Mosaic arthroplasty should be considered for treatment of subchondral bone cysts of the femoral condyle and distal...
; Animals; Arthroplasty--veterinary--VE; Bone Cysts--surgery--SU; Bone Transplantation--veterinary--VE; Femur--surgery--SU; Graft Survival...

4/3,AB,KWIC/4
MEDLINE(R)

14297278 **PMID:** 12730921
Cartilage resurfacing: filling defects.
Gross Allan E
Division of Orthopaedic Surgery, Mount Sinai Hospital, 600 University Avenue, Suite 476A, Toronto, Ontario M5G 1X5, Canada.
Journal of arthroplasty (United States) Apr 2003 , 18 (3 Suppl 1) p14-7 , **ISSN:** 0883-5403--Print **Journal Code:** 8703515
Publishing Model Print

Document type: Journal Article; Review
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Chondral defects with no significant bone involvement can be managed **arthroscopically** using surface treatments such as debridement and drilling, abrasion **arthroplasty**, and microfracture. Chondral defects can also be managed **arthroscopically** using osteochondral autografts (**mosaicplasty**) or by cartilage cell transplant or periosteal grafts, both of which are performed in open surgery. The **arthroscopic** surface treatments are best reserved for small defects, but cell transplantation and **mosaicplasty** have been used for defects up to 3 cm in diameter. Periosteal grafting can be used for large defects affecting an entire condyle, but clinical experience with this procedure is limited and it is still considered investigational. Larger osteochondral defects (uncontained defects greater than 3 cm in diameter and greater than 1 cm in depth) are managed using osteochondral allografts. Realignment osteotomy should be considered in conjunction with any of these techniques in the presence of a coexisting deformity.

Chondral defects with no significant bone involvement can be managed **arthroscopically** using surface treatments such as debridement and drilling, abrasion **arthroplasty**, and microfracture. Chondral defects can also be managed **arthroscopically** using osteochondral autografts (**mosaicplasty**) or by cartilage cell transplant or periosteal grafts, both of which are performed in open surgery. The **arthroscopic** surface treatments are best reserved for small defects, but cell transplantation and

mosaicplasty have been used for defects up to 3 cm in diameter. Periosteal grafting can be...

4/3,AB,KWIC/5
MEDLINE(R)

14137212 **PMID:** 15775279
[Arthroplasty using Mosaicplasty]
Matsusue Yoshitaka; Nakagawa Yasuaki
Department of Orthopaedic Surgery, Shiga University of Medical Science.
Clinical calcium (Japan) Jan 2002 , 12 (1) p66-9 , **ISSN:** 0917-5857--Print **Journal Code:** 9433326
Publishing Model Print
Document type: English Abstract; Journal Article
Languages: JAPANESE
Main Citation Owner: NLM
Record type: PubMed not MEDLINE
Mosaicplasty is a method to repair the chondral defect of the weight-bearing surface by transplanting the cylindrical osteochondral plugs harvested from the non-weight bearing surface of the knee. The chondral defect is repaired with a complex of the transplanted hyaline cartilage and the regenerated fibrous cartilage in between. It can be performed **arthroscopically** and the postoperative rehabilitation can be started earlier, but the number of the harvested plugs is limited. The indication of **mosaicplasty** is the medium-sized focal chondral defect under the age of 50. Usually, osteoarthritis can not be indicated, but can be performed for the early stage of osteoarthritis and osteonecrosis in combination with osteotomy.
[Arthroplasty using Mosaicplasty]
Mosaicplasty is a method to repair the chondral defect of the weight-bearing surface by transplanting... ...the transplanted hyaline cartilage and the regenerated fibrous cartilage in between. It can be performed arthroscopically and the postoperative rehabilitation can be started earlier, but the number of the harvested

...pgs is limited. To find ...
Usually, the osteoarthritis can...

4/3,AB,KWIC/6
MEDLINE(R)

13340435 PMID: 11603718

Mosaicplasty for the treatment of articular defects of the knee and ankle.

Hangody L; Feczko P; Bartha L; Bodo G; Kish G
Orthopaedic Department, Uzsoki Hospital, Budapest, Hungary.

Clinical orthopaedics and related research (United States) Oct 2001, (391 Suppl) pS328-36, ISSN 0009-921X
Print Journal Code: 0075674
Publishing Model Print
Document type: Journal Article; Review
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Efficacious treatment of full-thickness cartilage defects of the weightbearing surfaces is a multi-faceted challenge for the orthopaedic surgeon. Autologous osteochondral transplantation represents one solution: to bring about a hyaline or hyalinelike repair of the defected area. The current authors discuss the experimental background and their 8 years of clinical experience with the autologous osteochondral **mosaicplasty**. Several series of animal studies and subsequent clinical practice have confirmed the survival of the transplanted hyaline cartilage. Hyaline cartilage and fibrocartilage fill the donor sites located on the nonweightbearing surfaces and surfaces that bear less weight. Clinical scores, imaging techniques, control **arthroscopies**, histologic examination of biopsy samples, and cartilage stiffness measurements were used to evaluate the clinical outcomes and quality of the transplanted cartilage. According to these investigations, femoral condylar implantations have shown good to excellent results in 92%, tibial resurfacing in 88%, patellar and/or trochlear **mosaicplasties** in 81%, and talar procedures in 94% of patients. The Bandi score showed long-term donor site disturbances in 3% of patients. Fifty-eight of the 68 control **arthroscopies** had good gliding surfaces, histologically-proven survival of the transplanted hyaline cartilage, and fibrocartilage covering of the donor sites. In the entire series, there were four deep infections and 34 painful hemarthroses after surgery. A multicentric, comparative, prospective evaluation of 413 **arthroscopic** resurfacing procedures (**mosaicplasty**, Pridie drilling, abrasion **arthroplasty**, and microfracture cases in homogenized subgroups) showed that **mosaicplasty** gave a more favorable clinical outcome in the long-term followup, than the other three techniques. Intermediate-term evaluation of the femoral condylar implantations (3-6-years followup) and talar **mosaicplasties** (3-7-years followup) confirmed the durability of the early results. From these encouraging results from an increasingly large series and similar results from other centers, it seems that autologous osteochondral **mosaicplasty** may be a viable alternative treatment of localized full-thickness cartilage damage of the weightbearing surfaces of the knee and other weightbearing synovial joints.

Mosaicplasty for the treatment of articular defects of the knee and ankle.

...discuss the experimental background and their 8 years of clinical experience with the autologous osteochondral mosaicplasty. Several series of animal studies and subsequent clinical practice have confirmed the survival of the... ...on the nonweightbearing surfaces and surfaces that bear less weight. Clinical scores, imaging techniques, control arthroscopies, histologic examination of biopsy samples, and cartilage stiffness measurements were used to evaluate the clinical... ...shown good to excellent results in 92%, tibial resurfacing in 88%, patellar and/or trochlear mosaicplasties in 81%, and talar procedures in 94% of patients. The Bandi score showed long-term donor site disturbances in 3% of patients. Fifty-eight of the 68 control arthroscopies had good gliding surfaces, histologically-proven survival of the transplanted hyaline cartilage, and

fibrocartilage covering ... ...deep infections and 34 painful hemarthroses after surgery. A multicentric, comparative, prospective evaluation of 413 arthroscopic resurfacing procedures (mosaicplasty, Pridie drilling, abrasion arthroplasty, and microfracture cases in homogenized subgroups) showed that mosaicplasty gave a more favorable clinical outcome in the long-term followup, than the other three techniques. Intermediate-term evaluation of the femoral condylar implantations (3-6-years followup) and talar mosaicplasties (3-7-years followup) confirmed the durability of the early results. From these encouraging results... ...an increasingly large series and similar results from other centers, it seems that autologous osteochondral mosaicplasty may be a viable alternative treatment of localized full-thickness cartilage damage of the weightbearing...

4/3,AB,KWIC/7

13256611 **PMID:** 11398361
Treatment algorithm for osteochondral injuries of the knee.
Cain E L; Clancy W G
American Sports Medicine Institute, Birmingham, Alabama, USA.
Clinics in sports medicine (United States) Apr 2001 , 20 (2) p321-42 , **ISSN:** 0278-5919--Print **Journal Code:** 8112473
Publishing Model Print
Document type: Journal Article; Review
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
The treatment of osteochondral fractures and OCD lesions in the knee is controversial. Many new procedures and techniques have been developed recently to address osteochondral lesions, indicating that no single procedure is accepted universally. Our treatment algorithm is based on the age of the patient, skeletal maturity, and the presence of adequate subchondral bone attached to the chondral lesion. Most nondisplaced lesions in the patient with open physes will heal with conservative treatment. The onset of skeletal maturity indicates a need for a more aggressive treatment approach. If adequate cortical bone is attached to the fragment, drilling of stable lesions, or drilling with fixation of unstable or loose fragments is appropriate. Autologous bone graft can be necessary to stimulate healing and properly reconstruct the subchondral bony contour. For failed fixation attempts or lesions not amenable to fixation, each treating surgeon must be proficient and comfortable with an articular surface reconstruction technique. The goal for the reconstructive procedure, to produce a smooth gliding articular surface of hyaline or hyaline-like cartilage, is possible using current techniques including **mosaicplasty**, osteochondral allograft transplantation, and autologous chondrocyte transplantation. Debridement, drilling, microfracture, and abrasion chondroplasty have been shown to result in fibrocartilage with inferior mechanical properties when compared with hyaline cartilage. No long-term studies have been published, however, to confirm the benefits of replacing osteochondral defects with hyaline cartilage rather than fibrocartilage. Although the results of many reconstructive procedures are quite encouraging with early follow up, the ultimate goal is to prevent long-term degenerative arthritis. Only well-designed prospective studies with long-term follow up will determine the adequacy of these procedures in reaching the ultimate goal. This treatment algorithm is based on the senior author's (WGC) experience with the complex dilemma of osteochondral lesions of the knee.
...gliding articular surface of hyaline or hyaline-like cartilage, is possible using current techniques including **mosaicplasty**, osteochondral allograft transplantation, and autologous chondrocyte transplantation. Debridement, drilling, microfracture, and abrasion chondroplasty have been...
; Adolescent; Adult; **Arthroplasty**; **Arthroscopy**--methods--MT; Biocompatible Materials--therapeutic use--TU;

Bone Transplantation; Cartilage, Articular--physiology--PH; Cartilage, Articular...

4/3,AB,KWIC/8
MEDLINE(R)

13211853 **PMID:** 11340554
Arthroscopic mosaic arthroplasty in the equine third carpal bone.
Hurtig M; Pearce S; Warren S; Kalra M; Miniaci A
Department of Clinical Studies, Ontario Veterinary College, University of Guelph, Ontario, Canada N1G 2W1.

Veterinary surgery - VS - the official journal of the American College of Veterinary Surgeons (United States)
May-Jun 2001 , 30 (3) p228-39 , **ISSN:** 0161-3499--Print **Journal Code:** 8113214
Publishing Model Print
Document type: Journal Article; Research Support, Non-U.S. Gov't
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
OBJECTIVE--To investigate survival and function of autogenous heterotopic osteochondral grafts in a site where injuries are common. STUDY DESIGN--Three osteochondral grafts were harvested **arthroscopically** from the femoropatellar joint and transplanted to the third carpal bone (C(3)). Nine months later, histologic, histomorphometric, and biochemical comparisons were made between the transplanted grafts in C(3) and tissue adjacent to the recipient site, the opposing radial carpal bone (C(r)), the donor site in the femoropatellar joint, and the sham-operated contralateral C(3). ANIMALS--One mixed-breed pony and 5 Standardbred horses aged 3 to 8 years old. METHODS--Using instruments modified for equine use, four 4.5-mm-diameter osteochondral grafts were harvested **arthroscopically** from the distal aspect of the lateral trochlea of the right femur and inserted into the radial facet of the right third carpal bone. The fourth graft was kept as a donor-site control sample. Three months later, regular exercise was started and at 6 months, repeat **arthroscopy** was conducted to evaluate healing. The horses were euthanatized 9 months after transplantation, and comparisons were made between the grafts, opposing radial carpal bone, and contralateral third carpal bone. The assessment criteria included paravital staining, a modified Mankin scoring system, and biochemical analyses for collagen type, total collagen content, and sulfated glycosaminoglycan concentration. RESULTS--All horses were sound 21 days' postoperatively. At 6 months, all 18 grafts were intact but somewhat soft and opaque compared with surrounding carpal cartilage. Nine months' postoperatively, the bony portions of the grafts were well integrated with the recipient sites, but 6 grafts had histologic evidence of cartilage degeneration. From biochemical analysis of grafts, there was little or no new repair tissue invading the experimental sites, but sulfated glycosaminoglycan (proteoglycan) loss from the transplanted cartilage was marked. CONCLUSIONS--Heterotopic transfer of osteochondral grafts from the distal aspect of the lateral femoral trochlea to the third carpal bone is feasible with minor modifications of human **mosaic arthroplasty** instruments. The bony portion of the osteochondral grafts was quickly remodeled to provide subchondral support to the transplanted articular cartilage. The loss of proteoglycan from the transplanted cartilage indicates that the grafts might have been injured during harvesting or insertion, or, more likely, did not remodel to meet the demands of a new biomechanical environment. CLINICAL RELEVANCE--These findings suggest that **arthroscopic** resurfacing of focal osteoarticular defects will not be successful in the long term unless donor and recipient sites can be matched with respect to cartilage thickness, biochemical constituents, and physical properties. **Mosaic arthroplasty** may be indicated in selected cases in which no other options exist to create a confluent cartilage-covered surface.
Arthroscopic mosaic arthroplasty in the equine third carpal bone.
...grafts in a site where injuries are common. STUDY DESIGN--Three osteochondral grafts were harvested

arthroscopically from the femoropatellar joint and transplanted to the third carpal bone (C(3)). Nine months... ...Using instruments modified for equine use, four 4.5-mm-diameter osteochondral grafts were harvested arthroscopically from the distal aspect of the lateral trochlea of the right femur and inserted into... ...site control sample. Three months later, regular exercise was started and at 6 months, repeat arthroscopy was conducted to evaluate healing. The horses were euthanatized 9 months after transplantation, and comparisons... ...lateral femoral trochlea to the third carpal bone is feasible with minor modifications of human mosaic arthroplasty instruments. The bony portion of the osteochondral grafts was quickly remodeled to provide subchondral support... ...to meet the demands of a new biomechanical environment. CLINICAL RELEVANCE--These findings suggest that arthroscopic resurfacing of focal osteoarticular defects will not be successful in the long term unless donor... ...recipient sites can be matched with respect to cartilage thickness, biochemical constituents, and physical properties. Mosaic arthroplasty may be indicated in selected cases in which no other options exist to create a...
Descriptors: *Arthroplasty--veterinary--VE; *Arthroscopy--veterinary--VE; *Carpus, Animal--surgery--SU; *Horses--surgery--SU ; Animals; Arthroplasty--methods--MT; Bone Transplantation--veterinary --VE; Cartilage, Articular--pathology--PA; Femur--transplantation--TR; Graft Survival...

4/3,AB,KWIC/9
MEDLINE(R)

13043946 **PMID:** 11402718
Arthroscopic autologous osteochondral mosaicplasty for the treatment of subchondral cystic lesion in the medial femoral condyle in a horse.

Bodo G; Hangody L; Szabo Z; Peham C; Schinzel M; Girtler D; Sotonyi P
Department and Clinic of Surgery and Ophthalmology, Szent Istvan University, H-1400 Budapest, P.O. Box 2, Hungary. gbodo@univet.hu
Acta veterinaria Hungarica (Hungary) 2000 , 48 (3) p343-54 , **ISSN:** 0236-6290--Print **Journal Code:** 8406376
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
An 11-year-old, Hungarian half-bred stallion was presented with a history of mixed left hindlimb lameness of 6 months duration. Subchondral bone cyst of the medial femoral condyle and injury of the medial meniscus were diagnosed. Osteochondral autograft transplantation (**mosaic arthroplasty**) was performed, taking grafts from the less weight-bearing medial border of the medial femoral trochlea of the affected limb, and transplanting them into the cyst during **arthroscopy**. The lameness was evaluated prior to and one year after the operation with a motion analysis system during treadmill exercise. Considerable improvement of the lameness and the clinical signs as well as successful transplantation of the grafts, and a new hard joint cartilage surface of the medial femoral condyle could be detected during follow-up **arthroscopy**. Osteochondral autograft transplantation seems to bee a possible alternative for treating subchondral cystic lesions of the medial femoral condyle in horses. A new technique for the surgical treatment of a subchondral cystic lesion of the medial femoral condyle in the horse is described.
Arthroscopic autologous osteochondral mosaicplasty for the treatment of subchondral cystic lesion in the medial femoral condyle in a horse.
...the medial femoral condyle and injury of the medial meniscus were diagnosed. Osteochondral autograft

transplantation (mosaic arthroplasty) was performed, taking grafts from the less weight-bearing medial border of the medial femoral trochlea of the affected limb, and transplanting them into the cyst during arthroscopy. The lameness was evaluated prior to and one year after the operation with a motion... ...hard joint cartilage surface of the medial femoral condyle could be detected during follow-up arthroscopy. Osteochondral autograft transplantation seems to bee a possible alternative for treating subchondral cystic lesions of...
Descriptors: *Arthroscopy; *Bone Cysts--veterinary--VE; *Horse Diseases--surgery --SU; *Lameness, Animal--surgery--SU

4/3,AB,KWIC/10
MEDLINE(R)

12386207 **PMID:** 10231112
Treatment of unstable osteochondritis dissecans lesions of the knee using autogenous osteochondral grafts (mosaicplasty).
Berlet G C; Mascia A; Miniaci A
Department of Surgery, University of Toronto, and The Toronto Western Hospital, Ontario, Canada.
Arthroscopy - the journal of arthroscopic & related surgery - official publication of the Arthroscopy Association of North America and the International Arthroscopy Association (UNITED STATES) Apr 1999 , 15 (3) p312-6 ,
ISSN: 0749-8063--Print **Journal Code:** 8506498
Publishing Model Print
Document type: Case Reports; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Symptomatic osteochondritis dissecans lesions with minimal fragmentation that may be replaced within their crater have classically been treated by reattachment. The choice for internal fixation is varied. This article reports on the treatment of unstable osteochondritis dissecans lesions using autogenous osteochondral plugs as a means of biological internal fixation. The appearance on magnetic resonance imaging of osteochondral plugs at 6 and 9 months after transplantation is also presented.
Treatment of unstable osteochondritis dissecans lesions of the knee using autogenous osteochondral grafts (mosaicplasty).
Descriptors: *Arthroplasty--methods--MT; *Cartilage, Articular--transplantation --TR; *Joint Instability--surgery--SU; *Knee Joint; *Osteochondritis Dissecans--surgery... ; Adolescent; Arthrography; Arthroscopy; Cartilage, Articular --pathology--PA; Cartilage, Articular--radiography--RA; Follow-Up Studies; Humans; Joint Instability--diagnosis...

4/3,AB,KWIC/11
MEDLINE(R)

11584111 **PMID:** 9430578
Arthroscopic autogenous osteochondral mosaicplasty for the treatment of femoral condylar articular defects. A preliminary report.
Hangody L; Kish G; Karpati Z; Szerb I; Udvarhelyi I

Department of Orthopaedics and Trauma, Budapest Uzsoki Hospital, Hungary.
Knee surgery, sports traumatology, arthroscopy - official journal of the ESSKA

(GERMANY) 1997 , 5 (4) p262-7 , **ISSN:** 0942-2056--Print **Journal Code:** 9314730
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

An **arthroscopic** technique for the use of **mosaicplasty** osteochondral grafting in the treatment of femoral condylar articular defects is described. During the procedure, small cylindrical grafts are harvested from the nonweightbearing periphery of the patellofemoral joint and implanted in **mosaiclike** fashion into the focal cartilage defect of the weightbearing condylar surface. This report describes the **arthroscopic** technique using newly designed instruments and the early results of 44 patients treated by this method. Good to excellent results have been obtained based on follow-up ranging from 1 to 5 years. The modified HSS scores are compared with a control group consisting of patients treated by abrasion **arthroplasty**. Evaluation was done clinically and, in some cases, by ultrasound, magnetic resonance imaging, 3-dimensional computed tomography. The results of 10 control **arthroscopies** and the histological evaluations of 6 biopsies demonstrated the hyalinelike cartilage surface at the recipient area and the fibrocartilage formation at the surface of the donor holes.

Arthroscopic autogenous osteochondral mosaicplasty for the treatment of femoral condylar articular defects. A preliminary report.

An arthroscopic technique for the use of mosaicplasty osteochondral grafting in the treatment of femoral condylar articular defects is described. During the procedure... ...cylindrical grafts are harvested from the nonweightbearing periphery of the patellofemoral joint and implanted in mosaiclike fashion into the focal cartilage defect of the weightbearing condylar surface. This report describes the arthroscopic technique using newly designed instruments and the early results of 44 patients treated by this... ...modified HSS scores are compared with a control group consisting of patients treated by abrasion arthroplasty. Evaluation was done clinically and, in some cases, by ultrasound, magnetic resonance imaging, 3-dimensional computed tomography. The results of 10 control arthroscopies and the histological evaluations of 6 biopsies demonstrated the hyalinelike cartilage surface at the recipient...

Descriptors: *Arthroscopy--methods--MT; *Bone Transplantation; *Cartilage Diseases--surgery--SU; *Cartilage, Articular--transplantation--TR; *Femur --surgery--SU...

4/3,AB,KWIC/12
MEDLINE(R)

11376166 **PMID:** 9195635

Current concepts in the treatment of articular cartilage defects.

Minas T; Nehrer S
Department of Orthopedics, Brigham and Women's Hospital, Harvard Medical School, Boston, Mass, USA.
Orthopedics (UNITED STATES) Jun 1997 , 20 (6) p525-38 , **ISSN:** 0147-7447--Print **Journal Code:** 7806107
Publishing Model Print
Document type: Journal Article; Review
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

Over time, articular cartilage loses the capacity to regenerate itself, making repair of articular surfaces difficult. Lavage and debridement may offer temporary relief of pain for up to 4.5 years, but offer no prospect of long-term cure. Likewise, marrow-stimulation techniques such as drilling, microfracture, or abrasion **arthroplasty** fail to yield long-term solutions because they typically promote the development of fibrocartilage. Fibrocartilage lacks the durability and many of the mechanical properties of the hyaline cartilage that normally covers articular surfaces. Repair tissue resembling hyaline cartilage can be induced to fill in articular defects by using perichondrial and periosteal grafts. However, these techniques are limited by the amount of tissue available for grafting and the tendency toward ossification of the repair tissue. Autogenous osteochondral **arthroscopically** implanted grafts (**mosaicplasty**), or open implantation of lateral patellar facet (Outerbridge technique), requires violation of subchondral bone. Osteochondral allografts risk viral transmission of disease and low chondrocyte viability, in addition to removal of host bone for implantation. Autologous chondrocyte implantation offers the opportunity to achieve biologic repair, enabling the surgeon to repair the joint surface with autologous articular cartilage. With this technique, care must be taken to ensure the safety, viability, and microbial integrity of the autologous cells while they are expanded in culture over a 4- to 5-week period prior to implantation. Surgical implantation requires equal attention to meticulous technique. In the future, physiologic repair also may become possible using mesenchymal stem cells or chondrocytes delivered surgically in an ex vivo-derived matrix. This would allow in vitro manipulation of cells with growth factors, mechanical stimuli, and matrix sizing to allow implantation of mature biosynthetic grafts which would allow treatment of larger defects with decreased rehabilitation and morbidity.
...prospect of long-term cure. Likewise, marrow-stimulation techniques such as drilling, microfracture, or abrasion **arthroplasty** fail to yield long-term solutions because they typically promote the development of fibrocartilage. Fibrocartilage... ...tissue available for grafting and the tendency toward ossification of the repair tissue. Autogenous osteochondral **arthroscopically** implanted grafts (**mosaicplasty**), or open implantation of lateral patellar facet (Outerbridge technique), requires violation of subchondral bone. Osteochondral...

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?  s mosaicplasty
S5          88   S MOSAICPLASTY
?  s s5 and mosaic
            88   S5
         17091   MOSAIC
S6           6   S S5 AND MOSAIC
?  s s6 not s4
             6   S6
            12   S4
S7           5   S S6 NOT S4

?  t 7/3,ab,kwic/all
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7/3,AB,KWIC/1
MEDLINE(R)

23792881 **PMID:** 17471826

[Surgical treatment of knee joint osteoarthritis in the middle-aged patient]
Gelenkerhaltende chirurgische Therapie der Gonarthrose im mittleren Lebensalter.
Pietsch Martin; Hofmann Siegfried
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Wiener medizinische Wochenschrift (1946) (Austria) Jan 2007 , 157 (1-2) p7-15 , **ISSN:** 0043-5341--Print
Journal Code: 8708475
Publishing Model Print
Document type: English Abstract; Journal Article
Languages: GERMAN
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Several treatment options for the osteoarthritis of the knee in middle-aged patients to preserve the joint are available. Arthroscopic debridement is still a valuable treatment when detailed indications are considered. Microfracture procedure showed good and excellent results primarily at a follow-up of 2 years. Cartilage defects up to 4 cm2 should be treated by the **mosaic**-type osteochondral autologous transplantation. Autologous chondrocyte implantation (ACI) should be discussed when larger defects are presented in the younger patient. Existing osteoarthritis, ACI is not recommended. Up till now, there was no significant difference in outcomes comparing ACI and **mosaicplasty** or microfracture. Basic for successful surgical cartilage repair is a stable joint with a normal limb. An eventual additional osteotomy of the knee should be considered based on a standing, three-joint radiograph in every patient.
...up of 2 years. Cartilage defects up to 4 cm2 should be treated by the **mosaic**-type osteochondral autologous transplantation. Autologous chondrocyte implantation (ACI) should be discussed when larger defects are ... ...not recommended. Up till now, there was no significant difference in outcomes comparing ACI and **mosaicplasty** or microfracture. Basic for successful surgical cartilage repair is a stable joint with a normal...

7/3,AB,KWIC/2
MEDLINE(R)

23648497 **PMID:** 17546883
[Comparative study on repair of medium and large-sized osteochondral compound defects with mosaicplasty]
Zhang Haining; Leng Ping; Wang Yingzhen
Department of Joint Surgery, Affiliated Hospital of Qingdao University, Qingdao Shandong, 266003, P. R. China. zhhaining@sina.com
Zhongguo xiu fu chong jian wai ke za zhi = Zhongguo xiufu chongjian waike zazhi = Chinese journal of reparative and reconstructive surgery (China) Apr 2007 , 21 (4) p378-81 , **ISSN:** 1002-1892--Print **Journal Code:** 9425194
Publishing Model Print
Document type: English Abstract; Journal Article
Languages: CHINESE
Main Citation Owner: NLM
Record type: In Process
OBJECTIVE: To investigate the effectiveness of **mosaicplasty** in repair of large-sized osteochondral compound defects and the integrity of transplanted tissue with recipient sites so as to lay a foundation for clinical application. METHODS: Twenty-four adult goats were divided into 3 groups randomly. The diameters of defect were 6 mm for the medium-sized defects and 9 mm for the large-sized defects, which were created by a trepan. All of the defects were repaired with osteochondral plugs in diameters of 2 mm (the medium-sized defects) or 3 mm (the large-sized

defects). The osteochondral plugs were harvested around the intercondylar fossa or intertrochlea groove, and pressed into the recipient sites by specialized instruments in a **mosaic** mode. No internal fixation was needed and the animal were allowed to move freely after operation. From 4 to 24 weeks postoperatively, the specimens were observed in gross and under electromicroscopy. X-ray detection and glycosaminoglycan (GAG) analysis were also performed to testify the healing process and the integrity of the cartilage and subchondral bone. RESULTS: The transplanted subchondral bone was integrated firmly with each other or with recipient sites in both **mosaicplasty** groups. But 24 weeks postoperatively, transplanted cartilage was not integrate with each other apparently. Obvious cleavage between cartilage plugs could be seen. But in the large-sized defect groups, some of the osteochondral plugs were relapsed into the defects leaving the recipient sites some steps, leading to some degree of abrasion in the opposing articular cartilage. There was no significant difference in the GAG content between the transplanted cartilage and normal cartilage. X-ray analysis also demonstrated the healing process between the subchondral bone. CONCLUSION:

Mosaicplasty can repair the medium or small-sized osteochondral defects efficiently.
[Comparative study on repair of medium and large-sized osteochondral compound defects with mosaicplasty] OBJECTIVE: To investigate the effectiveness of mosaicplasty in repair of large-sized osteochondral compound defects and the integrity of transplanted tissue with... ...fossa or intertrochlea groove, and pressed into the recipient sites by specialized instruments in a mosaic mode. No internal fixation was needed and the animal were allowed to move freely after... ...transplanted subchondral bone was integrated firmly with each other or with recipient sites in both mosaicplasty groups. But 24 weeks postoperatively, transplanted cartilage was not integrate with each other apparently. Obvious... ...normal cartilage. X-ray analysis also demonstrated the healing process between the subchondral bone. CONCLUSION: Mosaicplasty can repair the medium or small-sized osteochondral defects efficiently.

7/3,AB,KWIC/3
MEDLINE(R)

22855487 **PMID:** 17063836
Autologous osteochondral mosaicplasty grafting.
Bartha Lajos; Vajda Andras; Duska Zsofia; Rahmeh Husam; Hangody Laszlo
Semmelweis Medical School, Orthopedic Clinic, Budapest, Hungary.
Journal of orthopaedic and sports physical therapy (United States) Oct 2006 , 36 (10) p739-50 , **ISSN:** 0190-6011--Print **Journal Code:** 7908150
Publishing Model Print
Document type: Journal Article; Review
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Successful management of chondral and osteochondral defects of the weight-bearing joint surfaces has always been a challenge for orthopedic surgeons and rehabilitation specialists. Autologous osteochondral **mosaic** transplantation technique is one of the recently evolved methods to create hyaline or hyaline-like repair tissue in the pathologic area. Clinical evaluation, various imaging techniques, arthroscopy (second look), histological examination of biopsy samples, and measurements of cartilage mechanical properties are used to evaluate the merits of outcomes and quality of the transplanted cartilage. According to our investigations, good to excellent results were achieved in more than 92% of patients treated with femoral condylar implantations, 87% of those treated with tibial resurfacing, 79% of those treated with patellar and/or trochlear mosaicplasties, and 94% of those treated with talar procedures. Long-term donor-site discrepancies, assessed with use of the Bandi Score, showed that patients had 3% morbidity after

mosaicplasty. Sixty-nine of 89 patients who were followed up with a second-look arthroscopy showed congruent gliding surfaces, histological evidence of the survival of the transplanted hyaline cartilage, and fibrocartilage filling of the donor sites. In a series of 831 consecutive patients, very few complications have been observed. These included 4 deep infections and 36 painful postoperative intra-articular bleedings. On the basis of these results and those of other similar studies, autologous osteochondral **mosaicplasty** appears to be a promising alternative for the treatment of small- and medium-sized focal chondral and osteochondral defects of the weight-bearing surfaces of the knee and other weight-bearing synovial joints.

Autologous osteochondral mosaicplasty grafting.

...joint surfaces has always been a challenge for orthopedic surgeons and rehabilitation specialists. Autologous osteochondral mosaic transplantation technique is one of the recently evolved methods to create hyaline or hyaline-like... ...discrepancies, assessed with use of the Bandi Score, showed that patients had 3% morbidity after mosaicplasty. Sixty-nine of 89 patients who were followed up with a second-look arthroscopy showed... ...bleedings. On the basis of these results and those of other similar studies, autologous osteochondral mosaicplasty appears to be a promising alternative for the treatment of small- and medium-sized focal...

7/3,AB,KWIC/4

MEDLINE(R)

15398853 **PMID:** 15758678

Autologous osteochondral mosaicplasty for treatment of a posttraumatic defect of the lateral tibial plateau: a case report with two-year follow-up.

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Journal of orthopaedic trauma (United States) Mar 2005 , 19 (3) p217-22 , **ISSN:** 0890-5339--Print **Journal Code:** 8807705

Publishing Model Print

Document type: Case Reports; Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Posttraumatic osteochondral defects following a tibial plateau fracture are common and a serious complication that may lead to the development of posttraumatic arthrosis. Successful reconstruction of the tibial plateau must include restoration of limb alignment, repair of bone defects, restoration of the articular cartilage, and preservation of the menisci. When osteochondral defects are present, the use of bulk bone grafts to restore the original articular surface anatomy of the tibial plateau is difficult due to incongruity between the graft and the original joint surface. Recognizing this, an autologous osteochondral transplantation utilizing the **mosaic** technique was performed successfully on a 32-year-old male alpine skier with a posttraumatic osteochondral defect following a tibial plateau fracture. At 2 years postsurgery, the patient had regained the capacity to perform most activities of daily living and to participate in sports. Clinical examination revealed an improvement of the Lysholm score from 48 points to 72 points.

Autologous osteochondral mosaicplasty for treatment of a posttraumatic defect of the lateral tibial plateau: a case report with...

...the graft and the original joint surface. Recognizing this, an autologous osteochondral transplantation utilizing the mosaic technique was performed successfully on a 32-year-old male alpine skier with a posttraumatic...

7/3,AB,KWIC/5
MEDLINE(R)

13347879 **PMID:** 11503979

Mosaicplasty for the treatment of osteochondritis dissecans of the talus: two to seven year results in 36 patients.

Hangody L; Kish G; Modis L; Szerb I; Gaspar L; Dioszegi Z; Kendik Z
Uzsoki Hospital, Orthopaedic & Trauma Department, Budapest, Hungary. hangody@axelero.hu
Foot & ankle international / American Orthopaedic Foot and Ankle Society and Swiss Foot and Ankle Society (United States) Jul 2001 , 22 (7) p552-8 , **ISSN:** 1071-1007--Print **Journal Code:** 9433869
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

An osteochondral defect (OCD) is known as a symptomatic lesion causing pain, recurrent synovitis, and altered joint mechanics most commonly in a weight-bearing joint. Loose bodies may develop, which may then cause joint destruction and/or locking. The damage to the articular surface is most likely a precursor of ankle osteoarthritis. With the recent advances in diagnostic imaging, such as MRI, as well as the development of ankle arthroscopy, the identification and classification of these lesions has become much more precise. This allows more accurate staging and improves treatment recommendations. The assessment of a particular treatment is also improved. A variety of treatment alternatives are now available. These include arthroscopic procedures including debridement, retrograde drilling, and bone grafting. Compared to open treatment, arthroscopic procedures may be particularly advantageous in the treatment of small defects and stable OCD lesions. Until recently, however, favorable results have been less predictable for large or unstable osteochondral defects. We treat these more difficult lesions with a **mosaic** autogenous osteochondral transplantation. In our hands, this appears to provide an optimal treatment result. The present report evaluates the clinical outcome of 36 patients followed for two to seven years after a **mosaicplasty** autogenous osteochondral transplantation from a non or less weight bearing portion of the knee to the ipsilateral talus. Ankle function was measured by the Hannover scoring system and showed good to excellent results in 34 cases (94%) with no long term donor site morbidity. The encouraging clinical results are supplemented with radiographs and histology, which support the premise of lasting relief of symptoms and prevention of ankle arthrosis.

Mosaicplasty for the treatment of osteochondritis dissecans of the talus: two to seven year results in...
...predictable for large or unstable osteochondral defects. We treat these more difficult lesions with a mosaic autogenous osteochondral transplantation. In our hands, this appears to provide an optimal treatment result. The... ...evaluates the clinical outcome of 36 patients followed for two to seven years after a mosaicplasty autogenous osteochondral transplantation from a non or less weight bearing portion of the knee to...